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ABSTRACT

This study focused on two questions: (1) whether the types of study-aid test, or the levels of test anxiety would affect the level of performance on the test under non-anxious conditions; and (2) whether there would be any interaction effect between the types of study-aid test and the levels of anxiety under non-anxious conditions. Twelve female undergraduate students were randomly assigned to two high anxiety or to two low anxiety groups--according to the Achievement Anxiety Test. Each pair of groups received a study-aid test with keyed answers or a study-aid test with keyed answers plus brief explanations. Following three weeks of studying, all subjects were tested with the learning achievement test consisting of 50 test items randomly selected from the 250 items of the study-aid test. The results of an analysis of variance indicated that the types of study-aid test and the levels of test anxiety had no significant effect on test performance. Further, the interaction of the types of study-aid test and the levels of test anxiety was also nonsignificant. One reason given to explain why test anxiety was not related to test performance is that grades were not tied to test performance in this study. (PN)

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Study-Aid Test and Level of Anxiety

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Running head STUDY-AID TEST

Study-Aid Test and Level of Anxiety

Studies of tests as teaching aids have focused mostly on test performance in actual classroom under anxious conditions. Generally, tests used as study-aids prior to learning of study units facilitated achievement as measured by examinations administered to the students upon the completion of the study units (Fitch, Drucker & Norton, 1951). One advantage of using tests as teaching aids might be that students might be able to figure out what their instructor might expect. Another advantage of using tests as teaching aids might be that tests might increase achievement through directing learning and enforced practice with the materials. If it is true that test anxious students' poorer performance is partially attributable to ineffective or inappropriate pre-examination behavior (Wittmaier, 1972), tests used as teaching aids might be of great help to them. However, the question is whether study-aid tests could be still effective when they were used under non-anxious conditions. Under non-anxious conditions students do not work for grades; they are internally motivated to obtain knowledge.

This study focused on two questions. The first question was whether the types of study-aid test, or the levels of test anxiety would affect the level of performance on the test under non-anxious conditions. The second question was whether there would be any interaction effect between the types of study-aid test and the

levels of test anxiety under non-anxious conditions. A study-aid test here referred to a set of test items given to the students prior to taking the actual test for the purpose of making test preparations.

Method

Subjects

The subjects were 12 undergraduate students who were majoring in Elementary/Special Education. All subjects were white females who volunteered to participate.

Materials

A study-aid test consisted of 250 multiple choice test items with keyed answers and a study-aid test consisted of the identical 250 multiple choice test items with keyed answers plus brief explanations were developed in the area of Special Education.

Fifty test items were randomly selected from the 250 test items used for the study-aid test to be used as a learning achievement test.

For the purpose of grouping the Achievement Anxiety Test (Alpert & Haber, 1960) was used. Alpert and Haber defines test anxiety by dividing into debilitating anxiety which diverts the student's attention from the task-relevant responses needed for optimum performance, and facilitating anxiety which actually increases the student's ability to focus on the tasks of the test.

Procedure

A 2x2 factorial design was utilized with the levels of anxiety (high x low) and the types of study-aid test (keyed answers x keyed answers plus brief explanations) as independent variables, and the posttest scores as dependent variables. All subjects were assigned randomly to the four groups--two high anxiety groups and two low anxiety groups--according to the Achievement Anxiety Test (Alpert & Haber, 1960) scores. Each pair of the high and low anxiety groups received one of the treatments: a study-aid test with keyed answers or a study-aid test with keyed answers plus brief explanations. Each pair of the high and low anxiety groups studied the study-aid test for three weeks except Saturdays and Sundays--15 working days, Monday through Friday. Subjects were instructed to study 20 test items each day for the first 10 working days and 10 test items for each day for the remaining five working days.

After they completed studying with the study-aid test, all subjects were tested with the learning achievement test. To minimize individual differences due to speed factor, no time limit was given for completion.

Prior to conduct this study all subjects were told that their performance on the test would not affect their school grades.

An ANOVA (equal n) was performed on the test data obtained from the posttest. Twelve observations were included in the final analysis. Means and standard deviations on the test were presented in Table 1.

Insert Table 1 about here

The results of ANOVA performed on the posttest data were reported in Table 2. The results indicated that the types of study-aid test and the levels of test anxiety had no significant effect on test performance. Furthermore, the interaction of the types of study-aid test by the levels of test anxiety was also nonsignificant.

Insert Table 2 about here

Discussion

It appears that the levels of anxiety are not significantly related to academic performance (Alpert & Haber, 1960). It is possible that one of the reasons why test anxiety was not related to the test performance in this study is that the grades were not tied to the test performance. There must be a great deal of natural

anxiety over the grades because college grades represent symbols of success in gaining social approval and directly influence the students' immediate and future goals. This anxiety may be either heightened or reduced by class learning experiences. In the present study it must be that the subjects did not have such anxiety. "Grades" must be the most important motivational device for college learning (Hawk & Deridder, 1963; McKeachie, 1963).

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Table 1

Means and Standard Deviations of the Posttest

Group	Mean	S.D.
1[a]	26.67	9.24
2[b]	20.33	7.02
3[c]	32.33	10.02
4[d]	23.67	10.07

1[a] High anxiety group with study-aid test (keyed answers).

2[b] Low anxiety group with study-aid test (keyed answers plus brief explanations).

3[c] High anxiety group with study-aid test (keyed answers plus brief explanations).

4[d] Low anxiety group with study-aid test (keyed answers).

Table 2

Results of ANOVA on the posttest

Source	SS	df	ms	F	P
Total	906.25	11	-	-	-
Test	168.75	1	168.75	2.01	n.s.
Anxiety	60.75	1	60.75	0.72	n.s.
Test x Anxiety	4.08	1	4.08	0.05	n.s.
Error	672.67	8	84.08	-	-